IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s):	A.D. Baker et al.	
Case:	23-2	
Serial No.:	09/800,684	
Filing Date:	March 7, 2001	
Group:	2665	
Examiner:	Alpus Hsu	

> I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
>
> Signature: _Lisa L. Vulpio_ Date: January 31, 2006

Title: Automatic Protocol Version Detection and Call
Processing Reconfiguration in a Communication System

<u>TRANSMITTAL LETTER</u>

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith are the following documents relating to the above-identified patent application:

(1) Response to Office Action; and
(2) Supplemental Appeal Brief.

Please extend the period for response by one month to February 21, 2006. Please charge **Ryan, Mason & Lewis, LLP Deposit Account No. 50-0762** the amount of $120, to cover this fee. In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 50-0762** as required to correct the error. A duplicate copy of this letter is enclosed.

Respectfully submitted,

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Date: January 31, 2006

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RESPONSE TO OFFICE ACTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated October 21, 2005 in the above-referenced application, Applicants hereby request reinstatement of the appeal pursuant to 37 C.F.R. §1.193(b)(2). A Supplemental Appeal Brief is submitted concurrently herewith.

Respectfully submitted,

Date: January 31, 2006

Robert W. Griffith
Attorney for Applicant(s)
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Title: Automatic Protocol Version Detection and Call
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SUPPLEMENTAL APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Sir:

This Supplemental Appeal Brief is submitted in response to the Office Action dated October 21, 2005 in the above-referenced application, in which the Examiner reopened prosecution in response to the Appeal Brief filed August 10, 2005.

Appellants have submitted concurrently herewith a response to the Office Action, requesting reinstatement of the appeal pursuant to 37 C.F.R. §1.193(b)(2).

REAL PARTY IN INTEREST

The present application is assigned to Lucent Technologies Inc. The assignee Lucent Technologies Inc. is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals and interferences.

STATUS OF CLAIMS

Claims 1-16 are pending in the present application. Claims 1-16 stand rejected under 35 U.S.C. §102(e) and are appealed.

STATUS OF AMENDMENTS

There have been no amendments filed subsequent to the final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention provides techniques for automatic protocol version detection and call processing reconfiguration in a communication system (Specification, page 2, lines 25-26).

Claims 1, 8 and 15 provide techniques for configuring a first device of a communication system. A message is received in the first device from a second device of the communication system. It is determined if a protocol version of the message is the same as a protocol version associated with the second device in a memory of the first device. When the protocol version of the message is not the same, it is determined if the protocol version of the message is a known protocol version. The protocol version associated with the second device in the memory of the first device is updated when the protocol version of the message is known. The message is processed at the first device when the protocol version of the message is the same.

By way of example, illustrative embodiments of the invention of claims 1, 8 and 15 are shown in FIGS. 1A and 2A of the drawings. FIG. 1A shows a block diagram of a portion of an exemplary communication system 100 in which the invention is implemented. The system includes a communication switch 102 and a set of N customer premises equipment (CPE) devices 104-i, i = 1, 2, ... N-1, N. Switch 102 communicates with devices 104-i via a user network interface 106. Switch 102 includes processing elements denoted as A and B. Processing element A is a conventional call processing engine. Processing element B is coupled to processing element A and is a version analysis engine, which includes, accesses or is otherwise associated with a system database 110. Switch 102 is configured to analyze control messages on signaling channels between itself and CPE devices 104-i in order to detect and assert a specific version of the UNI signaling

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protocol. FIG. 2A is a flow diagram showing a message processing function implemented in a version analysis engine of a communication system of FIG. 1A.

Advantageously, the invention provides automated signaling protocol determination and corresponding communication system element reconfiguration which allows protocol version updates to be managed efficiently and without the need for manual intervention by a system administrator or technician (Specification, page 3, lines 16-19).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-16 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,308,217 to Sasagawa (hereinafter "Sasagawa").

ARGUMENT

Appellants incorporate by reference herein the disclosures of all previous responses filed in the present application, namely, responses dated October 14, 2004 and June 8, 2005, and an appeal brief dated August 10, 2005.

A. Claims 1-5, 8-12 and 15

With regard to the rejection of claims 1-16 under 35 U.S.C. §102(e) as being anticipated by Sasagawa, Appellants respectfully assert that Sasagawa fails to teach or suggest all of the limitations in claims 1-16 for at least the reasons presented in Appellants' previous responses as well as the reasons presented below.

It is well-established law that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Appellants assert that the rejection based on Sasagawa does not meet this basic legal requirement. Support for this assertion follows.

The present invention, for example, as recited in independent claim 1, recites a method for configuring a first device of a communication system. At least one message is received in the first device from a second device of the communication system. It is determined if a protocol version of

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the at least one message is the same as a protocol version associated with the second device in a memory of the first device. When the protocol version of the at least one message is not the same, it is determined if the protocol version of the at least one message is a known protocol version. When the protocol version of the at least one message is known, the protocol version associated with the second device in the memory of the first device is updated. The at least one message is processed at the first device when the protocol version of the at least one message is the same. Independent claims 8 and 15 recite additional embodiments of the present invention having similar limitations.

Sasagawa discloses a signaling device for connecting terminals having different versions of signaling protocol installed. More specifically, Sasagawa discloses a signaling device that stores identification information that identifies each of the terminals that the network accommodates and version information representing a version of signaling software used by it. Upon receipt of a signaling message, the signaling device references the version of the software in storage used by the originating and terminating terminals of the signaling message. The message may then be translated in accordance with these software versions.

Thus, while Sasagawa discloses the storage of a software version of originating terminal (a second device) in a memory of the signaling device (a first device), Sasagawa fails to disclose anything relating to a determination of the software version of the actual message, and also fails to disclose any comparison of the stored software version of the originating terminal (the second device) to the actual software version of the message. Therefore, Sasagawa fails to disclose the limitation of determining if a protocol version of the at least one message is the same as a protocol version associated with the second device in a memory of the first device.

Alternatively, for the above limitation of the independent claims, should the originating terminal be designated the second device and the terminating terminal be designated the first device, Sasagawa fails to disclose a memory in the terminating terminal for the storage of the software version of the originating terminal. Therefore, Sasagawa still fails to disclose the limitation of determining if a protocol version of the at least one message is the same as a protocol version associated with the second device in a memory of the first device.

The Examiner refers to portions of Sasagawa describing the translation of a message into a format that can be processed by the signaling software used by the terminating terminal or line when

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the software versions of the originating and terminating terminals do not match. However, Sasagawa fails to disclose anything regarding a determination of whether a software version of a message is a known software version. More specifically, Sasagawa fails to disclose that this determination takes place when a software version of the message is not the same as a software version associated with a originating device in a memory of the signaling device. This is especially true since there is neither a determination of the software version of the message nor a determination of whether it is the same as that in a memory of the originating device. Therefore, Sasagawa also fails to disclose the limitation of determining if the protocol version of the message is a known protocol version when the protocol version of the message is not the same.

Finally, while Sasagawa discloses a translation of a message based on stored data regarding the originating and terminating terminals, Sasagawa fails to disclose anything regarding an update of a software version associated with the originating terminal in a memory of the signaling device. More specifically, Sasagawa fails to disclose that such an update would occur when the software version of message is not the same as the protocol version associated with the originating terminal in a memory of the signaling device, and the software version of the message is a known software version. Therefore, Sasagawa fails to disclose the limitation of updating the protocol version associated with the second device in the memory of the first device when the protocol version of the at least one message is known.

Therefore, Sasagawa fails to to teach or suggest all of the limitations of independent claims 1, 8 and 15 as described above.

Appellants assert that dependent claims 2-5 and 9-12 are patentable at least by virtue of their dependency from independent claims 1 and 8. Dependent claims 2-5 and 9-12 also recite patentable subject matter in their own right.

B. Claims 6 and 13

Dependent claims 6 and 13 are patentable at least by virtue of their dependency from independent claims 1 and 8, respectively, and also recite patentable subject matter in their own right.

Dependent claims 6 and 13 recite that the step of determining if a protocol version of the at least one message is the same further comprises the step of determining if an information element

identifier extracted from the at least one message is a valid information element identifier for the protocol version associated with the second device in a memory of the first device.

In providing support for the rejection of claims 6 and 13, the Examiner directs Appellants to portions of Sasagawa disclosing the extraction of an originating address and a terminating address from a received message. Further, Sasagawa discloses the discovery of software versions of originating and terminating terminals from a memory of the signaling device based on the originating and terminating addresses. However, Sasagawa fails to disclose the extraction of an software version identifier from the message for a determination as to whether such an identifier is valid for a specified software version in a memory of the signaling device. Thus, Sasagawa fails to teach or suggest a first device that determines whether an extracted information element identifier from a message is valid for a protocol version associated with a second device in the memory of the first device.

C. Claims 7 and 14

Dependent claims 7 and 14 are patentable at least by virtue of their dependency from independent claims 1 and 8, respectively, and also recite patentable subject matter in their own right.

Dependent claims 7 and 14 recite that a call processing function of the first device is adjusted so as to provide a feature associated with the particular version of the protocol.

In providing support for the rejection of claim 7, the Examiner directs Appellants to portions of Sasagawa disclosing message translation determination at the signaling device. However, Sasagawa does not disclose the adjustment of a call processing function of the signaling device. Thus, Sasagawa fails to teach or suggest that a call processing function of a first device is adjusted so as to provide a feature associated with the particular version of the protocol.

D. Claim 16

Independent claim 16 is patentable for at least the reasons presented above with regard to independent claims 1, 8 and 15, and also recites patentable subject matter in its own right.

Independent claim 16 recites a method for configuring a first device of a communication system. At least one message is received in the first device from a second device of the

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communication system. It is determined if an information element identifier extracted from the at least one message is a valid information element identifier for a protocol version associated with the second device in a memory of the first device. When the extracted information element identifier is not valid for a protocol version associated with the second device, it is determined if the extracted information element identifier is a valid information element identifier for another protocol version. The protocol version associated with the second device in the memory of the first device is updated when the extracted information element identifier is valid for another protocol version. The message at the first device is processed when the extracted information element identifier is valid for a protocol version associated with the second device.

In providing support for the rejection of claim 16, the Examiner provides the evidence and reasoning used in the rejection of independent claims 1 and 8. However, the Examiner has failed to address the determination of whether an information element identifier extracted from the message is a valid information element identifier for a protocol version as described above with regard to claims 6 and 13. Additionally, the Examiner has failed to address, the determination of whether the extracted information element identifier is a valid information element identifier for another protocol version. Thus, Sasagawa fails to teach or suggest validity determinations of extracted information element identifiers with regard to protocol versions.

For at least the reasons given above, Appellants respectfully request withdrawal of the §102(e) rejection of claims 1-16. Appellants believe that claims 1-16 are patentable over Sasagawa. As such, the application is believed to be in condition for allowance, and favorable action is respectfully solicited.

Respectfully submitted,

Date: January 31, 2006

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<u>CLAIMS APPENDIX</u>

1. A method for configuring a first device of a communication system, the method comprising the steps of:

receiving at least one message in the first device from a second device of the communication system;

determining if a protocol version of the at least one message is the same as a protocol version associated with the second device in a memory of the first device;

determining if the protocol version of the at least one message is a known protocol version when the protocol version of the at least one message is not the same, and updating the protocol version associated with the second device in the memory of the first device when the protocol version of the at least one message is known; and

processing the at least one message at the first device when the protocol version of the at least one message is the same.

2. The method of claim 1 wherein the first device comprises a switch of the communication system.

3. The method of claim 1 wherein the second device comprises a customer premises equipment (CPE) device of the communication system.

4. The method of claim 1 wherein the protocol comprises an asynchronous transfer mode (ATM) user-network interface (UNI) protocol.

5. The method of claim 1 wherein the at least one message analyzed to determine the particular version of the protocol comprises a signaling channel message received over a signaling channel established between the first and second devices.

6. The method of claim 1 wherein the step of determining if a protocol version of the at least one message is the same as a protocol version associated with the second device in a memory of the first device further comprises the step of determining if an information element identifier extracted from the at least one message is a valid information element identifier for the protocol version associated with the second device in a memory of the first device.

7. The method of claim 1 wherein a call processing function of the first device is adjusted so as to provide a feature associated with the particular version of the protocol.

8. An apparatus for use in configuring a first device of a communication system, the apparatus comprising:

a memory;

at least one processor coupled to the memory, associated with the first device and operative to: (i) receive at least one message in the first device from a second device of the communication system; (ii) determine if a protocol version of the at least one message is the same as a protocol version associated with the second device in a memory of the first device; (iii) determine if the protocol version of the at least one message is a known protocol version when the protocol version of the at least one message is not the same, and update the protocol version associated with the second device in the memory of the first device when the protocol version of the at least one message is known; and (iv) process the at least one message at the first device when the protocol version of the at least one message is the same.

9. The apparatus of claim 8 wherein the first device comprises a switch of the communication system.

10. The apparatus of claim 8 wherein the second device comprises a customer premises equipment (CPE) device of the communication system.

11. The apparatus of claim 8 wherein the protocol comprises an asynchronous transfer mode (ATM) user-network interface (UNI) protocol.

12. The apparatus of claim 8 wherein the at least one message analyzed to determine the particular version of the protocol comprises a signaling channel message received over a signaling channel established between the first and second devices.

13. The apparatus of claim 8 wherein the step of determining if a protocol version of the at least one message is the same as a protocol version associated with the second device in a memory of the first device further comprises the step of determining if an information element identifier extracted from the at least one message is a valid information element identifier for the protocol version associated with the second device in a memory of the first device.

14. The apparatus of claim 8 wherein a call processing function of the first device is adjusted so as to provide a feature associated with the particular version of the protocol.

15. A machine-readable medium storing one or more programs for configuring a first device of a communication system, wherein the one or more programs when executed by a processor implement the steps of:

receiving at least one message in the first device from a second device of the communication system;

determining if a protocol version of the at least one message is the same as a protocol version associated with the second device in a memory of the first device;

determining if the protocol version of the at least one message is a known protocol version when the protocol version of the at least one message is not the same, and updating the protocol version associated with the second device in the memory of the first device when the protocol version of the at least one message is known; and

processing the at least one message at the first device when the protocol version of the at least one message is the same.

16. A method for configuring a first device of a communication system, the method comprising the steps of:

receiving at least one message in the first device from a second device of the communication system;

determining if an information element identifier extracted from the at least one message is a valid information element identifier for a protocol version associated with the second device in a memory of the first device;

determining if the extracted information element identifier is a valid information element identifier for another protocol version when the extracted information element identifier is not valid for a protocol version associated with the second device, and updating the protocol version associated with the second device in the memory of the first device when the extracted information element identifier is valid for another protocol version;

processing the message at the first device when the extracted information element identifier is valid for a protocol version associated with the second device.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.